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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/707,530 | 12/19/2003 | Gerold Sluka | P7344.9US | 1529 |
| 30008 | 7590 | 07/14/2004 | EXAMINER | |
| GUDRUN E. HUCKETT DRAUDT LONSSTR. 53 WUPPERTAL, 42289 GERMANY | | | RIDDLE, KYLE M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3748 | |

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,530

Applicant(s)

SLUKA ET AL.

Examiner

Kyle M. Riddle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 4, 7, 11 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Paragraph 16, line 1 of the paragraph, "shows" should read --shown--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 6, 8-10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Niethammer et al. (U.S. Patent 6,390,043).

Re claims 1, 6, and 8, Niethammer et al. disclose a camshaft rotation adjusting device comprising:

- a stator or cell wheel 5 having stays or bridges 6a to 6d projecting radially inward with end faces resting sealingly against a rotor or inner part 2 (column 3, lines 66-67 with column 4, lines 1-12, and Figures 3a-3c);

- a rotor or inner part 2 fastened on a camshaft 1 and having vanes or bridges 4a to 4d projecting into spaces between bridges 6a to 6d with end faces resting sealingly against an inner peripheral wall of the stator or cell wheel 5 (column 3, lines 7-9, column 4, lines 18-24, and Figures 3a-3c);

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- the vanes or bridges 4a to 4d having projections 25 and 26 which cooperates with recesses 21, 22 of the stays or bridges 6a to 6d extending over the whole width of the bridges (column 4, lines 10-13, lines 18-26, Figures 3a-3c);

- the projections 25, 26 dipping into recesses 21, 22 forming a throttle gap 32 (column 4, lines 30-33);

- the interaction of the projections and recesses creating an integrated hydraulic damping in the form of a hydraulically acting damping throttle (column 2, lines 18-32 and Figures 3a-3c).

Re claims 2 and 9, Niethammer et al. disclose a groove or partial pressure space 30 beneath projections 25, 26 of vanes or bridges 4a to 4d having rounded portions at the the base of the rotor or inner part 2 (column 4, lines 36-40, and Figures 3a-3c).

Re claim 3, the recesses 21, 22 are provided on the inner third of the radial direction up the rotor vanes or bridges 4a to 4d (column 4, lines 13-17 and Figures 3a-3c).

Re claim 5, the shoulders 29 of recesses 21, 22 of stays or bridges 6a to 6d project away from the side walls of the bridges 6a to 6d (column 4, lines 29-33, lines 42-44, and Figures 3a-3c).

Re claim 10, the stays or bridges 6a to 6d have a rounded end portion forming a radially outer partial pressure space 31 (column 4, lines 36-42, and Figures 3a-3c).

Re claim 12, the foot of the vanes or bridges 4a to 4d are provided with boreholes 11a to 11d discharging a pressure medium into the pressure space (column 4, lines 37-40, and Figures 3a-3c).

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Allowable Subject Matter

4. Claims 4, 7, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 2 patents.

- Iwasaki et al. (U.S. Patent 5,836,276) disclose a rotational phase adjusting apparatus with a fluid reservoir for damping vane/shoe contact.

- Sluka et al. (U.S. Patent 6,668,777) disclose a camshaft adjustment mechanism with shoe projections and vane recesses to dampen impact forces.

Communication

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (703) 306-3409. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

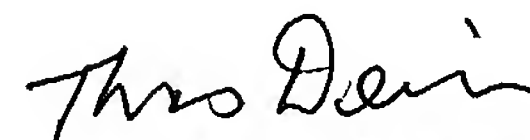
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kyle M. Riddle
Examiner
Art Unit 3748

kmr



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700